



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,556	01/18/2002	Abbas Raftari	201-0432 JRD	1733

22844 7590 01/22/2004

FORD GLOBAL TECHNOLOGIES, LLC.
SUITE 600 - PARKLANE TOWERS EAST
ONE PARKLANE BLVD.
DEARBORN, MI 48126

EXAMINER

ILAN, RUTH

ART UNIT	PAPER NUMBER
----------	--------------

3616

DATE MAILED: 01/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/683,556

Applicant(s)

RAFTARI ET AL.

Examiner

Ruth Ilan

Art Unit

3616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,6 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,7-15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's election without traverse of Species 1, claims 2, 5 and 15 in Paper No. 6 is acknowledged. Claims 3, 4, 6, and 16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

Drawings

2. The drawings are objected to because based on paragraph [0026] it appears that in Figure 1, the engine input should go into the planetary gear set, rather than directly into the motor. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 3 is objected to because of the following informalities: the acronym VSC is used without having been previously parenthetically introduced. Appropriate correction is required. The Examiner suggests inserting "(VSC)" after "a vehicle system controller" in claim 1, line 8.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 2, 5, 7-15, 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1, line 3 recites "an

electric motor". Since "an electric motor" has been recited in the preamble, it is unclear if this motor is intended to be the motor of the preamble, or an additional electric motor. An analogous problem occurs in claim 14, lines 1 and 2, which has a double recitation of "an electric motor". Further regarding claim 1, it is not accurate to say that the vehicle controller "comprises" input from an inertia switch. The controller uses input from an inertia switch. Further regarding claim 1, lines 8-12 are very grammatically awkward. Regarding claim 12, the term "conventional" is a relative term which renders the claim indefinite. The term "conventional" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 7, 8, 11, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shea (US 4,180,138.) Shea teaches a system to disconnect at least one drive wheel from an electric motor (40) having an output shaft (42) mechanically connected to at least one axle (35, 35' see Figure 2.) the axle further includes a means to mechanically disconnect the output shaft (clutch member 55) from at least one drive wheel (37.) Also included is a vehicle system controller (73) that includes input from electric motor and vehicle conditions. Shea fails to disclose that the controller monitors

input from an inertia switch. The Examiner takes Official Notice that it is known in the vehicle art to include inertia switches as inputs to vehicle controllers to provide control for safety restraint activation systems, such as air bags and seat belt tensioners. It would have been obvious to one having ordinary skill in the art at the time of the invention to include an inertia switch with the vehicle of Shea in order to provide collision protection for any safety restraints.

8. Claims 1, 7-10, 12, 13, 14, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (US 2001/0017225 A1.) Yamamoto et al. teaches a system to disconnect at least one drive wheel (36A, 36B) from an electric motor (30) having an output shaft (unnumbered shaft between motor and clutch 32.) The output shaft is mechanically connected (via clutch 32) to an axle and can be mechanically disconnected (via clutch 32.) Also included is a vehicle system controller (60) that uses inputs from motor conditions and activates the clutch based on vehicle conditions. Yamamoto et al. fails to disclose that the controller monitors input from an inertia switch. The Examiner takes Official Notice that it is known in the vehicle art to include inertia switches as inputs to vehicle controllers to provide control for safety restraint activation systems, such as air bags and seat belt tensioners. It would have been obvious to one having ordinary skill in the art at the time of the invention to include an inertia switch with the vehicle of Yamamoto et al. in order to provide collision protection for any safety restraints. Regarding claims 9 and 18, vacuum clutches are old and well known, and the Examiner takes Official Notice that such clutches may be used to replace electrically controlled clutches as an obvious design expedient.

Allowable Subject Matter

9. Claims 2, 5, and 15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

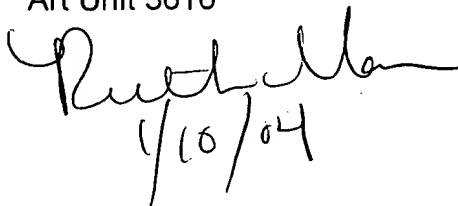
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Husby et al. teaches an inertial switch of interest. Rauneker teaches an axle disconnect of interest. Bracke et al. teaches an axle system of interest. Adler et al. teaches motors that are disconnected as the result of an accident.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth Ilan whose telephone number is 703-306-5956. The examiner can normally be reached on Monday-Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9326.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Ruth Ilan
Examiner
Art Unit 3616



1/16/04

RI
1/10/04